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ABSTRACT

This review of the literature on supported employment for individuals with severe disabilities begins by outlining two Federal definitions of supported employment and noting their similarities. Literature on approaches to supported employment is examined, focusing on individual jobs at distributed or scattered sites, enclaves, mobile crews, and benchwork. A table compares the four models, analyzing the organizational strategy, number of workers per job site, cost, intensity of support, training, supervision, implementation issues, wages, integration, other employment benefits, success in serving persons with the most severe disabilities, and success in overcoming environmental constraints to employment. Barriers to supported employment are also explored, such as attitudes, job performance, cost, benefit reductions, and jobs availability. A 21-item bibliography completes the document. (JDD)

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Supported Employment: Review of Literature

Policy Analysis Series No. 26

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POLICY ANALYSIS SERIES

SUPPORTED EMPLOYMENT: REVIEW OF LITERATURE

NO. 26

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I. INTRODUCTION

> Employment is a critical aspect of the lives of most adults in our society . . .. Paid employment offers opportunities to expand social contacts, contribute to society, demonstrate creativity, and establish an adult identity. The income generated . . . creates purchasing power . . . makes community integration easier, expands choices, enhances independence, and creates personal status. (Will, 1984, p. 4)

Employment opportunities for persons with severe disabilities have evolved through the years. For many years it was believed that persons with the most severe disabilities could never work outside traditional sheltered settings. Today many persons with a variety of disabilities are performing all types of work in community settings.

The purpose of this paper is to briefly summarize a review of the literature on supported employment. Policy Analysis Paper No. 27 will present data from several supported employment grants funded by the Governor's Council on Developmental Disabilities, and the results of community-based employment in day training and habilitation centers in 1986.

Recent studies support the general belief that persons with disabilities are not receiving the benefits of employment that result in increased integration, independence, productivity, and social value. These studies have also documented that the unemployment rate among persons with mental retardation is four to five times the national average (Edgar and Levine, 1986).

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Other studies have demonstrated, however, that persons with disabilities have employment capacities (Wehman and Hill, 1985); that a large portion of individuals are unserved by established vocational rehabilitation and/or mental retardation agencies (Wehman and Hill, 1985); and that adult day programs are not moving persons with disabilities into least restrictive employment opportunities (Bellamy, Rhodes, and Albin, 1986).

The shift toward supported employment gained increased, attention when in 1983, President Reagan signed the "Decade of the Disabled Proclamation" which called for increased employment for people with disabilities. Also in that same year, the Office of Special Education and Rehabilitative Services (OSERS), United States Department of Education, sponsored several key meetings on supported employment and is now funding 27 states for five years to convert adult day program services to supported employment.

Successful supported employment depends on three criteria: (a) the abilities, choices, and preferences of the individual with a disability to perform a given job; (b) the ability of service providers to initiate contact and establish job opportunities for persons with disabilities in the community; and (c) the philosophy and values which guide the match between the individual and the job options.

II. WHAT IS SUPPORTED EMPLOYMENT?

Employment options for individuals with developmental disabilities have expanded during the past decade as it became apparent that the capacities of most individuals with developmental disabilities had been underestimated (Kiernan and Stark, 1986). Supported employment refers to programs in which individuals are placed into community-based jobs and vocational and related services are provided on the job. Supported employment is designed for individuals with the most severe disabilities, those who have been traditionally unserved and underserved.

Various definitions have been applied to supported employment. Current definitions include:

- Public Law 100-146: Developmental Disabilities Assistance and Bill of Rights Act Amendments of 1987: "(14) The term 'supported employment' means competitive work in integrated settings--

  "(A) for individuals with developmental disabilities for whom competitive employment has not traditionally occurred; or

> "(B) for persons for whom competitive employment has been interrupted or intermittent as a result of a developmental disability, and who because of their disability need on-going support services to perform such work." (101 STAT. 843)

- U.S. Department of Education Office of Special Education and Rehabilitative Services (OSERS): Supported employment means paid work in a variety of settings, particularly regular work sites, especially designed for severely handicapped individuals, irrespective of age or vocational potential for:

    1. People for whom competitive employment at or above minimum wage traditionally has not been available; and

    2. People who, because of disability, need intensive ongoing post employment support to perform in the work setting.

Supported employment is further outlined in the OSERS' guidelines which specify the minimum criteria as:

1. At least 20 hours of paid work per week;

2. No more than eight persons with disabilities served at any one site; and

3. Ongoing publicly funded support.

While these and other definitions have been used to describe supported employment, there are similarities between the definitions. These similarities accent the difference between supported employment programs and traditional vocational and prevocational programs. They include:

- Work in nonsegregated settings: Supported employment programs are established in regular businesses. Thus the workers are in the community, as opposed to placement in a setting that is designed exclusively for persons with disabilities. Training is provided on the job in supported employment.

- Meaningful work: Supported employment concentrates on work and completing requirements of the job which are similar to employees without disabilities. This is different than traditional approaches which concentrate on

tasks that are:

1. Traditionally limited to sheltered employment, i.e., sorting items for packaging, collating, or assembly work; and

2. Traditionally viewed as prevocational in nature, i.e., sorting colors, simulated work, or therapeutic activities.

- Need for ongoing support and services necessary for maintaining employment: Ongoing support is not time limited but rather is provided as necessary in order to maintain employment. Support includes job analysis, job training, ongoing follow-along on the job, and transportation.

- Interactions with nondisabled individuals: Supported employment in regular work places allows the opportunity for individuals with disabilities to socially interact with individuals without disabilities. This approach contrasts with traditional approaches which have limited opportunities for interaction with people who are not disabled.

III. SUPPORTED EMPLOYMENT APPROACHES

Numerous research and demonstration projects have shown that supported employment is a viable, cost-effective method for integrating persons with moderate and severe disabilities into the work force (Noble, 1985; Hill and Wehman, 1983; and Hill, Wehman, Kregal, Banks, and Metzler, 1987). Mank, Rhodes, and Bellamy (1986) described the four traditional approaches of supported employment as: individual jobs, enclave, mobile crew, and benchwork approaches.

A. Individual Jobs (Distributed or Scattered Sites)

An individual job placement is made in which a person with a disability is placed into a community-based job similar to jobs performed by persons without disabilities. Mank et al. (1986) reported that using this approach, individuals with the most severe disabilities were successful employees. Typically, support for individuals was provided on a continuous one-to-one basis on the job site and was reduced to the minimum necessary to maintain the person in the job. This minimum varied from person to person and from job to job.

Three features of the approach made it difficult to serve

some individuals:

1. Entry level jobs often required day-to-day changes in tasks and performance criteria that make learning and performing the job more difficult.

2. The standards for acceptable work behavior were typically set by the business rather than by the service provider.

3. Amount of supervision necessary to support the employee was highly intensive. Individuals who require continuous supervision and support over long periods of time required more resources.

Other examples of developing individual placements are provided by Wehman (1986), Hill, Wehman, Kregal, Banks, and Metzler (1987), Vogelsberg (1986), and Wehman, Hill, Wood, and Parent (1987).

Wehman (1986) provided a description of a supported employment program that began in the fall of 1984. One hundred and forty-five persons with mental retardation were placed into part- and full-time competitive employment in the Richmond, Norfolk, and Virginia Beach areas of Virginia. Individuals placed ranged in age from 17 to 61, with the median age being 28 years old. Sixty-eight percent of the participants were men and thirty-two percent were women. The median measured IQ score was 48.

A total of 206 placements were made with over 100 employers. Jobs were primarily in service occupations such as custodial work, hotel and restaurant, and hospitals. Most of the placements began at minimum wage. One hundred and forty-five persons were placed in the 206 possible placements. Of the 145 persons placed, 71 were still employed in 1986 with a mean length of time in their work position of 15.5 months. The mean length of time persons without disabilities stayed in similar positions was five months.

Over $900,000 was earned by the 145 persons, who paid $213,642 in taxes. The average number of hours of support for each person was 177. Support included placement, training, and follow-up services.

A follow-up study done by Hill et al. (1987), reported results for 214 persons served in the program from 1978 to

1986. Fifty-one percent of the persons placed were moderately mentally retarded, with an average reported IQ of 51. Approximately 70 percent of all persons placed into supported employment remained employed for at least six months, with the average duration of employment being 21 months.

All persons earned at least the federal minimum hourly wage. The average annual salary before entering the program was $229. The average hours worked per week in the program was 28, with an average monthly salary of $406.51. The total cumulative earnings of the persons in the program was $2,554,545 with $587,545 paid in taxes. Further analysis of earnings, savings via reductions in Supplemental Security Income (SSI) payments, alternative program costs, taxes paid, and projected expenditures indicated that supported employment resulted in a final positive financial benefit of $1,057,000 accrued to the public.

Vogelsberg (1986) described the development of three supported employment programs in Barre, Burlington, and White River Junction, Vermont. The programs had been in existence for 56, 36, and 9 months, respectively. A total of 91 placements were secured for 73 different persons. Eighteen persons were dismissed from positions and were placed into a second employment site. Individuals were able to master a variety of skills and jobs, with the majority of jobs in kitchen/custodial occupations. Of the 91 placements, 26 were full-time with full benefits, with the remaining positions being part-time, averaging 100 hours per month. Individual reported IQ scores ranged from 10 to 79 with the average IQ score being 59.7.

All placements were made at minimum wage or higher, one position paid $9.58 per hour. Salaries of $325,945 were generated by individuals over the length of the study.

Wehman et al. (1987) completed a study of 21 persons for the purpose of determining the ability of placing persons with severe mental retardation into supported employment. The persons ranged in age from 18 to 63 with IQ scores ranging from 24 to 39. Four of the twenty-one persons were nonverbal or had severely impaired speech, while the other persons had very limited sentence expression. Most had no previous work experience.

The cumulative earnings for the group from 1978 to 1986 was $231,976, while job support costs were $107,000. The study reiterated the results of previous studies that with adequate support from professional staff, persons with moderate to severe disabilities can perform tasks in the community.

While success was reached placing and assuring meaningful work for these persons, Wehman et al. (1987) identified ten areas which should be considered to overcome the barriers to individual placement:

1. Make placements in more flexible settings.

2. Complete more extensive job analyses (do the job before making placement).

3. Provide total support to employer (employer hires program, not just consumer).

4. Allocate and expect far more staff intervention time to be required.

5. Employment specialist should expect to complete parts of the job for the consumer for a number of weeks.

6. Arrange for more systematic intervention and data systems which will be required for feedback purposes.

7. Expect to make more needed adaptations of the schedule, materials, job description, etc.

8. Develop early/ongoing communication with parents (commitment).

9. Provide support systems for job trainers to combat uncertainty/uneasiness (team work approach).

10. An exceptionally strong commitment from trainers, employers, parents, and related personnel is needed.

Wehman et al. (1987) also summarized their experience with placing persons with severe disabilities in four concluding points:

1. There was enormous potential for successful work for persons with the most severe disabilities.

2. Limited social skills and inability to relate to coworkers without disabilities was a major problem and caused separation.

3. Job development and cultivation of the "right" job was extremely important for people with complex learning problems.

4. More knowledge was needed in applying systematic behavioral instructional techniques in dynamic and fast-paced, community-based jobs.

B. Enclave

An enclave refers to a group of persons with disabilities who are placed, trained, and supervised among persons without disabilities in an industry or business. This approach allows some of the benefits of integrated employment while providing the continuous, ongoing support needed by individuals.

An example of an enclave approach was provided by Rhodes and Valenta (1985). Physio Control Corporation of Redmond, Washington, manufactures biomedical equipment, primarily heart defibrillators. The company employed approximately 900 people, including 250 electronics assemblers. Eight individuals with severe disabilities (IQs ranging from 33 to 45) were employed on a production line within the company. These persons assembled defibrillator components such as chest paddles for electrodes, wire harnesses, and battery support harnesses. Six of the eight persons maintained employment, one person quit, and one person was terminated due to low production rates and inappropriate behavior. Two of the six persons who maintained employment were hired as Physio employees. The average monthly wage earned prior to working at Physio was $44 per month. The average monthly wage earned at Physio was $323 per month.

The enclave approach had two characteristics that differentiated it from the individual approach:

1. It was often possible to select work that was relatively stable over time, thus it may be possible to teach individuals with extreme learning difficulties.

2. The enclave offered the possibility of continuous supervision.

C. Mobile Crew

The mobile crew refers to a small group (crew) of persons

with disabilities who work at various sites in the community. Jobs such as groundskeeping and janitorial work are the more common types of jobs for crews. Usually, a supervisor is assigned to each crew and is responsible for overseeing completion of each job, as well as supervision and training of the crew.

The mobile crew can provide a broad range of social contacts within the community such as work sites and restaurants. Data reported by two companies using the mobile crew model described wages per individual, ranging from $130 to $185 per month.

Features of the mobile crew include:

1. The mobile crew was used in rural areas and small towns without large industries.

2. Contract work for crews was available in areas with high unemployment or economic difficulties.

3. Ongoing service contracts were preferable to one time contracts. One time jobs required disproportionate high amounts of supervision and training as compared to long-term contracts.

D. Benchwork

The benchwork was designed to provide employment in electronics assembly work in a service agency that also functions as a business. Benchwork can be applied to other manufacturing and assembling operations. The benchwork approach was designed to provide long-term employment to persons with severe and profound disabilities, who previously were denied access to any vocational services. An individual's need for long-term supervision and services is provided by highly qualified staff and a 1:5 staff-to-worker ratio.

The benchwork approach is similar to traditional sheltered workshop programs in that services are provided in settings which reduces the opportunities for social interaction with persons without disabilities.

Table 1 illustrates a comparison of the organization, procedures and quality parameters of the four approaches as summarized by Mank et al. (1986).

Table 1

Comparison of Organization and Procedures
in Four Supported Employment Models

	Supported Jobs	Enclave	Mobile Crew	Benchwork
Organizational strategy and business base	— Nonprofit support to individuals and employers — Varied types of jobs	— Nonprofit support to host company — Target manufacturing companies	— Nonprofit — Crews operate from a van — Rural — Service contracts	— Nonprofit — Small electronics assembly businesses
Number of Workers per job site	1 per job	6-8	5 per crew	8-15
Cost	Not yet known, expected to be similar to day programs	Less than 1/2 the cost of other day programs	Same as traditional day programs	Same as traditional day programs
Intensity of support	Low. Continuous initially, scaling no more than 1 hour a day after several months	Medium. Continuous and long term	Medium. Continuous and long term	High. Continuous and long term
Training	Individual training for up to 4 months on: — job tasks — nonwork behaviors in and around job setting	Individual training on: — production tasks — nonwork behaviors in job setting	Individual training on: — service tasks — community integration activities	Individual training on: — contract tasks — community integration activities — nonwork behaviors in job settings
Supervisor	— Two-three supervisors for 12 employees in separate businesses	— One supervisor for 6-8 employees in host company — Host company assigns model employee as backup to supervisor	— One supervisor for five employees — Continuous presence of one supervisor on service jobs for all five employees	— Three supervisors for 15 employees — Continuous presence of more than one skilled supervisor in production area
Implementation issues	— Availability of local jobs — Matching employee needs to available support	— Availability of host company	— Availability of profitable, repeating service contracts	— Availability of contract work — Integration

Table 1

Comparison of Organization and Procedures in Four Supported Employment Models (continued)

	Supported Jobs	Enclave	Mobile Crew	Benchwork
Wages (exemplar)	Medium. $210/mo.	High. $295/mo.	Medium. $185/mo.	Medium. $118/mo.
Integration	High. Daily and continuous integration in individual job sites	High. Daily and nearly continuous integration with nonhandicapped peers in work area, break and lunch times	Medium. Breaks and lunch occur in community settings; work performed in community settings but interaction with nonhandicapped persons is low	Low. Community access activities scheduled during breaks, lunch, and beginning and end of day; integration on work floor with nonhandicapped auxiliary employees
Other employment benefits	Medium. Benefits vary across jobs	High. Full insurance benefits for workers after hiring by company	Low. Job security and benefits depend on organization's commercial success	Low. Job security and benefits depend on organization's commercial success
Success in serving persons with the most severe disabilities	Medium. Participants must be able to work with very limited contact with service program	Medium. Participants' behaviors must meet standards of host company	Medium. Model can accommodate only one person with extreme service needs per crew	High. Model has accommodated people with extreme learning and behavioral difficulties
Success in overcoming environmental constraints to employment	Low. Few environmental constraints affect existing sites if transportation issues can be solved	Low. Few environmental constraints affect existing sites if transportation issues can be solved	High. Successful implementation in high unemployment areas with little indigenous work	Medium. Successful development of businesses in some economically depressed areas

Source: From "Four Supported Employment Alternatives, by D. M. Mank, L. E. Rhodes, & G. T. Bellamy, 1986, Pathways to Employment for Adults with Developmental Disabilities, pp. 139-153. Copyright 1982 by Paul H. Brookes Publishing Company. Reprinted by permission.

IV. BARRIERS TO SUPPORTED EMPLOYMENT

What are the barriers to supported employment and what can be done to address the potential problems?

A. Attitude

The attitude which may be fostered and encouraged by parents, providers, government agencies, and the general public is that supported employment may not be possible. This is a result of many years of a service system based on a developmental approach which did not teach people with disabilities to work and live independently in community settings.

Parents may believe that their son or daughter cannot perform tasks in supported employment. Accompanying this concern is the fear that social security benefits or medical assistance eligibility will be lost or reduced. While both issues are of concern, both can be readily addressed through active demonstration that the person can hold active jobs in the community and information on how to retain benefits. The key is parental support. A study by Brickley, Campbell, and Browning (1985) indicated that family support and advocacy were crucial for long-term employment of persons with disabilities. The family must be shown the quality benefits of supported employment which can enrich the lives of their son or daughter and make them a more active participant in society. In doing so, individuals learn and develop skills which offer them independence and place less reliance on services and service providers.

Service providers may be hesitant in providing supported employment because it requires a shift in philosophy and program. Day training centers have historically provided services to train and develop skills for daily living. The results were services which often focused on continual lifelong support rather than services to foster independence, productivity, and integration. Supported employment does require a change in philosophy for no longer are services center-based but based in community settings. Rise, Inc., a vocational program in Spring Lake Park, Minnesota, reviewed their sheltered workshop policies and discovered that:

> Although our program services were justified on a 'continuum' model, few persons were actually progressing into competitive employment status, and . . . our training model was geared to produce limited outcome options with no serious effort to prepare participants for competitive employment. (Barrett and Lavin, 1987, p. 3)

Attitude will always be one of the challenges that persons with disabilities will face. Supported employment will only become a much fuller reality when attitudes and perceptions change to how supported employment can work rather than cannot work.

B. Job Performance

Historically, persons with disabilities were seen first and foremost as persons with disabilities rather than abilities. In doing so, options to work in the community were considered remote.

Research studies as late as 1979 found that, among persons with the most severe mental retardation, slow work performance and inability to change routine are important reasons for job loss . . . inadequate work habits are also common (Hill and Wehman, 1979).

While difficulties persisted in placing persons in supported employment, many of the obstacles of personal skill, motivation, and behavior were overcome with continued support rather than readiness training. Supported employment became a reality when it was recognized that persons may need ongoing assistance, retraining, and periodic supervision. This does not preclude difficulties due to slow adaptation of skills to a task or behavior problems, but it does recognize that the benefits of supported employment are possible if the resources are devoted to the need of the individual.

C. Cost

The biggest obstacle to supported employment is the potential cost and unstable funding mechanisms compared to other services. Many providers foresee problems in providing supported employment in enclaves, work crews, or individual sites especially when many dollars for a program are consumed in fixed costs and personnel costs for a current center-based program. In the short run, funds may be necessary for conversion from an incenter program to supported employment.

Bellamy, Rhodes, Mank, and Albin (1987) suggested that staff dollars must be reinvested in job coaches, rather than other traditional center-based positions. In doing so they outline how restructuring would:

1. Increase the resources available for developing work opportunities and training individuals with disabilities.

2. Decrease the level of start-up funds required to meet the increased direct service requirements of supported employment.

3. Produce faster results in achieving supported employment outcomes.

4. Give persons with disabilities access to those staff who rose through the organizational hierarchy in part because they were the most skilled trainers.

5. Keep all staff clearly focused on the employment outcomes actually being obtained by persons with severe disabilities. (p. 144)

Besides redirecting staff activity and job descriptions, there must be a willingness to explore supported employment from the point of view of those persons most directly benefitting from the efforts of supported employment. Again, it is a question of perceptions and philosophies which depend on real success stories of supported employment. These stories can document how supported employment can be more beneficial to the individuals involved and society even though it may cost more initially.

D. Benefit Reductions

Persons who receive Supplemental Security Income (SSI), Social Security Disability Income (SSDI) and/or Medical Assistance benefits can have a portion of their benefits reduced if their income is above the minimum threshold for program eligibility. This has been a significant barrier to the wide scale expansion of supported employment.

In 1986, Congress passed the Employment Opportunities for Disabled Americans Act (P.L. 99-603) which made permanent sections 1619(a) and (b) of the Social Security Act. These sections allow continued assistance through Social Security programs even though income may exceed the levels the Social Security Administration has established as "substantial gainful activity." Previously, if a person was engaged in an income producing job which was considered a "substantial gainful activity," their SSI eligibility was terminated. The new law now allows at least temporary engagement in supported employment without loss of eligibility.

It is expected that Congress will address SSDI and SSI work disincentives during the 1989 legislative session.

E. Jobs Availability

This barrier has been a common assumption among agencies beginning supported employment. This assumption stems from a twofold belief that persons cannot do many jobs that require extensive skills and available jobs in the community go to persons without disabilities.

The steps that need to be taken to realistically assess supported employment options must come from a willingness to approach employers, civic authorities, and other local groups to ascertain where work can be started. Aggressive and creative encounters with a full range of contacts will often provide initial and potentially long-lasting employment options.

Bellamy et al. (1987) outlined additional steps needed to engage in successful supported employment:

1. Focus on tangible outcomes: Set goals regarding the number of people in supported employment, hours worked, wages earned, and integration with persons who are not disabled.

2. Build slowly, and on strengths: Success must be established in a small way, before services can be expanded. Where goals are being met, steps can be taken to expand with the growing market for goods and services. Expansion should be undertaken within the goals and philosophy of integration, size of work groups, and independence.

3. Maintain a clear employment strategy: It is difficult for any business or company to do many things well. One agency may have too many supported employment approaches in too many businesses. Given the competition for work, and the necessity to keep an eye on management goals of supported employment, providers should focus on what they do well and keep contacts strong in those areas of business.

4. Plan for competition between business and service needs: There will be times when decisions must be made between competing interests of the individual and the business. Do you place the most productive worker in a work opportunity before a person with initial low productivity? Planning for competition and

conflict in service needs requires the development of clear guidelines for decision making.

The data on supported employment collected from Minnesota developmental training and habilitation centers will be presented in the next policy analysis paper.

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